

Executive Summary

This Closure Report was prepared for the U.S. Army Corps of Engineers (USACE), Sacramento District, to address all petroleum features located on the Petroleum, Oil, and Lubricant (POL) Hill Outparcel excluding the AST-2 area at Hamilton Army Airfield (HAAF) in Novato, California. The AST-2 area, also located within the POL Hill Outparcel, is addressed separately in the POL Hill Corrective Action Plan. POL Hill Outparcel was delineated during the Base Realignment and Closure process, and is scheduled for transfer to the City of Novato. This report presents the results of investigations for the POL Hill Outparcel to provide sufficient detail to demonstrate and recommend closure of POL Hill excluding the AST-2 area.

The POL Hill Outparcel was used by the Army and Air Force to store fuel from 1942 to 1986. Historically, 20 25,000-gallon underground storage tanks (USTs), one 750-gallon UST, and 3 aboveground storage tanks (ASTs) were located in the former tank farm area. Environmental investigations have determined that JP-4 jet fuel was the primary soil contaminant. There were also indications of minor releases of diesel fuel and waste oil. The data do not indicate that a release of leaded fuels occurred (International Technology Corporation [IT] 1999; IT 1997b). The only potential chemical of concern present at the site at levels above the residential cleanup goals (RCGs) was total petroleum hydrocarbons (TPH).

From 1985 through 1986, the Army investigated the soil and groundwater at the former tank farm. In 1985, TPH was detected in samples collected from surface and subsurface soils and from some of the groundwater wells (Woodward-Clyde 1985). In 1986 21 USTs, the water control pit, water-separator house (Building 717), and concrete vaults and piping were removed from the tank farm area. During the UST removal action, extensive soil staining was observed in some areas, thus the Army conducted additional investigations to evaluate the extent of soil contamination. Approximately 63 trenches were excavated during the investigation and soil and groundwater samples were collected and analyzed. TPH was detected in the soil and groundwater samples. In 1986, the Army conducted additional removal actions based on the sample results from the trenching investigation. Although large quantities of soil were removed, sample results indicated some TPH contaminated soil remained at the site.

From 1990 through 1996, the Army conducted several sampling events and removal actions in the tank farm area. In 1990, the Army began a trenching and sampling program to evaluate the extent of contamination for a second round of excavation. In the winter of 1990/1991, IT conducted further remediation at the tank farm area, based on the results of the trenching and sampling program. As part of the remedial activities, the Army removed the concrete fuel islands located on the west side of the POL Hill Outparcel; pavement from various portions of the property; several fuel lines that were left in place during the 1986 excavation; and three ASTs located west of the former location of the USTs (IT 1991).

In 1991, the Army installed nine of the new monitoring wells to characterize the former tank farm (ESI 1993). In addition, the Army completed 14 shallow soil borings near the former fuel distribution site (ESI 1993). The analytical results indicated that petroleum contamination was present at low concentrations in tank farm soil, and was not present in groundwater.

In 1993, Buildings 736, 737, and 738 were demolished because USACE began construction of a water treatment plant for Landfill 26 in the POL Hill Outparcel. During excavation activities, soil contaminated by petroleum hydrocarbons was excavated (USACE 1994). The excavated soils were then used as random fill in Landfill 26, which has a Resource Conservation and Recovery Act (RCRA) compliant cap. The cap is considered sufficient to protect potential human and ecological receptors from exposure to the impacted soils (IT 1997c).

In 1996 the Army drilled five additional soil borings around the perimeter of the treatment plant. The soil sample results for known TPH compounds were below the cleanup goal of 200 ppm.

In 1997, 1998, and 1999 following the completion of remediation activities in the former tank farm, the Army performed groundwater monitoring. The tank farm groundwater samples were all nondetect for TPH in 1998 and 1999 and below the closure criteria in 1997. These groundwater and soil data indicate that groundwater at the tank farm has not exceeded closure criteria since 1990 and that soil at the tank farm has not exceeded closure criteria since 1996.

Human health and environmental risks have been assessed (ESI 1993). The results of this study indicate that there are no substantial risks to humans or environmental receptors for toxic compounds under current or future land use scenarios.

The conclusion of this report is that remedial actions necessary for closure of all features associated with the tank farm (including below- and above-ground tanks, pumps, pipelines, and buildings) have been accomplished.

The general requirements necessary to demonstrate closure are:

- Fuel leaks were stopped and ongoing sources have been removed or remediated.
- The site was adequately characterized.
- Little or no groundwater impacts exist.
- No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.
- The site presents no significant risk to human health.

All general and specific closure criteria, listed above and in Section 1.4 of this report, have been met.